MongoDB

Using MongoDb to maintain a NoSQL Database

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NoSQL

- NoSQL, also referred to as “not only SQL” or “non-SQL,” is an approach to database design that enables the storage and querying of data outside the traditional structures found in relational databases. While it can still store data found within relational database management systems (RDBMS), it just stores it differently compared to an RDBMS.
- Instead of the typical tabular structure of a relational database, NoSQL databases house data within one data structure, such as JSON document. Since this non-relational database design does not require a schema, it offers rapid scalability to manage large and typically unstructured data sets.
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MongoDb

- MongoDB is a document-oriented database which stores data in JSON-like documents with dynamic schema. It means you can store your records without worrying about the data structure such as the number of fields or types of fields to store values. MongoDB documents are similar to JSON objects.

MongoDb

- MongoDB was first developed by a New York-based organization named 10gen in the year of 2007. Later 10gen changed the name and known as MongoDB Inc as of today. At the beginning, MongoDB is basically developed as a PAAS (Platform as a Service) database. But, in the year 2009, it was introduced as an open source database as named MongoDB 1.0.

BSON

- BSON is a binary serialization format used to store documents and make remote procedure calls in MongoDB.
- MongoDB stores data in BSON format both internally, and over the network, but that doesn’t mean you can’t think of MongoDB as a JSON database. Anything you can represent in JSON can be natively stored in MongoDB, and retrieved just as easily in JSON.

Getting Started with MongoDb

- Setting up envorinment

  to start mongodb use below command

  mongod --dbpath=<database folder in drive>

- To access mongod from cli

  mongo start --port=27017

Creating a database

- To create a database or switch to an already existing database

- Use <database name>
- To drop a database use db.dropDatabase()

View existing collections or create a collection in db

- Use show collections command to view existing collections in database
- To create a collection in db use createCollection command

  db.createCollection(<collection name>)

  * db is the variable that references the current database. The variable is automatically set to the default database test or is set when you use the use <db> to switch current database.

Drop a collection

- To drop a collection use command
- db.<Collection name>.drop()

Operations over MongoDb

- InsertOne
- InsertMany
- UpdateOne
- UpdateMany
- Save
- Find
- Limit
- Skip

Datatypes in MongoDb

- String
- Integer
- Double
- Boolean
- Null
- Array
- Object
- ObjectID
- Undefined

Datatypes

- Binary Data
- Date
- Min and Max Key
- Regular Expression
- JavaScript
- TimeStamp